

# SUSTAINABILITY

## Turning waste into green energy

Azalys, Suez Hélyseo – Carrières-sous-Poissy, France

How a Service Plan implements condition-based maintenance for improved service continuity at a waste treatment plant.



## Garbage in, energy out

Located in Carrières-sous-Poissy, Azalys is a waste treatment plant responsible for the management and recovery of urban waste in 23 Yvelines municipalities in the Paris region. It belongs to the Valoseine intermunicipal syndicate and is operated by a Suez subsidiary, Helyseo.

Serving an area inhabited by almost 300,000 people, Azalys treats 125,000 metric tons of waste and produces 40 GWh of electricity per year.

“Our unique mission is to find the most appropriate solutions to support the energy transition and to treat the territory’s waste sustainably, through reuse, sorting, recycling, recovery, and composting to protect biodiversity,” said Philippe Pece, Maintenance Manager at the site.

Unfortunately, not all waste can be recycled – around a third of all the garbage that comes into the plant cannot be recovered. The plant incinerates it and transforms the heat into steam, which is then converted by a turbo alternator into energy. Some of it is consumed by the site itself, the rest is sold to the electricity distribution network Enedis.

According to Pece, the facility’s control system allows it to be considered one of the cleanest sites in Europe. Fumes are filtered before being released into the atmosphere with sensors constantly measuring emissions to ensure all environmental regulations are met.

As Pece pointed out, the health of the electrical equipment is crucial to the plant’s mission.

## A long partnership

The plant has been using Schneider Electric equipment since its launch in 1998. So when it was time to modernize the installation, Schneider was an obvious choice for the job.

“We decided to modernize our electrical installation, particularly the high-voltage substation. We had to replace the obsolete protection relays and add some capacity,” Pece said.

The modernization process had to be as swift as possible in order not to interrupt the service provided to the local communities. With Schneider Electric services experts auditing and preparing the site, the entire operation took under four days to complete.

## Goal

Add capacity to the electrical installation and replace outdated equipment without a lengthy service interruption; enable predictive maintenance.

## Story

A waste recovery plant modernized its electrical system while providing continuous services for local communities.

## Solution

- Modernization of the electrical substation with connected RM6 and SM6 switchgear
- EcoStruxure Service Plan including data analytics with EcoStruxure Asset Advisor and remote monitoring by experts from the Connected Services Hub

## Results

- System modernization performed in four days, synchronized with the annual production shutdown
- Implementation of predictive maintenance to ensure the continuity of waste treatment and energy production services

### From reactive to preventive maintenance

The project involved installing state-of-the-art RM6 and SM6 switchgear in place of FluoKit units, which were later recycled.

The new switchgear is equipped with sensors that measure the temperature and humidity in the modules. This information is collected and sent to the EcoStruxure platform, then analyzed and interpreted by Schneider Electric's Connected Service Hub experts, enabling preventive and predictive maintenance. In addition, substation data, reports, and maintenance recommendations can be consulted in real-time via the mySchneider portal.

"IoT and the use of data from our equipment open up real opportunities for us, particularly for implementing preventive and predictive maintenance to improve the uptime and safety of the installation," Pece explained.



With timely alerts on equipment issues and support from Schneider Electric field services in fixing them, the facility can minimize the risk of downtime. "If I had to sum up this modernization project with Schneider Electric, it would be efficiency, competence, partnership, and peace of mind," Pece concluded.

"As both a waste collector and an energy producer, the availability of our facilities and the safety of our electrical equipment are crucial to our mission."

— Philippe Pece, Maintenance Manager at Azalys

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# EcoStruxure™

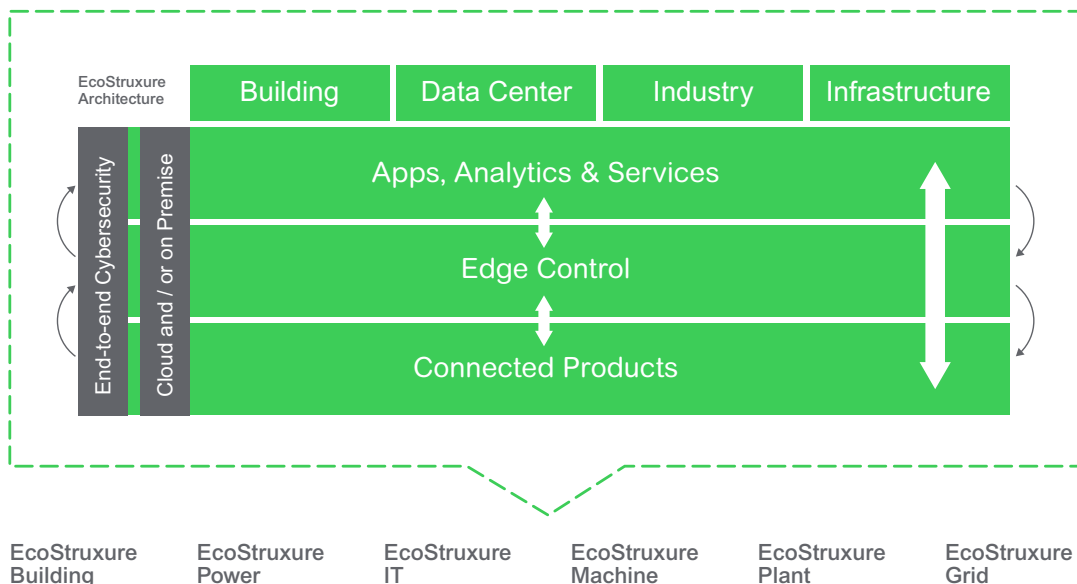
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EcoStruxure is our open, interoperable, IoT-enabled system architecture and platform. EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers. EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level.

This includes Connected Products, Edge Control, and Apps, Analytics & Services which are supported by Customer Lifecycle Software. EcoStruxure has been deployed in almost 500,000 sites with the support of 20,000+ developers, 650,000 service providers and partners, 3,000 utilities and connects over 2 million assets under management.

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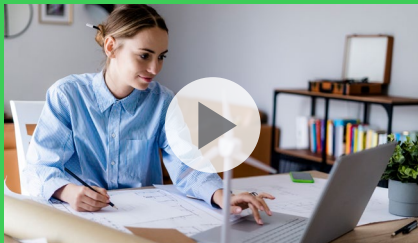
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